

## Nardosinonen Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)

### [ Product Information ]

**Name:** Nardosinone

**Catalog No.:** CFN90178

**Cas No.:** 23720-80-1

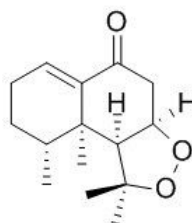
**Purity:** >=98%

**M.F:** C<sub>15</sub>H<sub>22</sub>O<sub>3</sub>

**M.W:** 250.33

**Physical Description:** Powder

**Synonyms:** (3aR)-1,3aβ,4,7,8,9,9a,9bβ-Octahydro-1,1,9β,9aβ-tetramethyl-5H-naphtho[2,1-c][1,2]dioxol-5-one.



### [ Intended Use ]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

### [ Source ]

The roots of *Nardostachys jatamansi* DC.

### [ Biological Activity or Inhibitors ]

Nardosinone as a neuritogenic substance, isolated from *Nardostachys chinensis*, it can enhance the NGF-induced neurite outgrowth from PC12D cells probably by amplifying an up-stream step of MAPK kinase in the nerve growth factor (NGF) receptor-mediated intracellular signaling pathway.<sup>[1]</sup>

Nardosinone can improve the proliferation, migration and selective differentiation of mouse embryonic neural stem cells, it has regulatory effects on neural stem cells, which may have significant implications for the treatment of brain injury and neurodegenerative diseases.<sup>[2]</sup>

Nardosinone can protect H9c2 cardiac cells from angiotensin II-induced hypertrophy, the protective effects may be mediated by repressing the phosphorylation of related proteins in PI3K/Akt and MEK/ERK signaling pathways.<sup>[3]</sup>

### **[ Solvent ]**

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

### **[ HPLC Method ]<sup>[4]</sup>**

Mobile phase: Acetonitrile- 0. 1% Phosphonic acid H<sub>2</sub>O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 25 °C;

The wave length of determination: 274 nm.

### **[ Storage ]**

2-8°C, Protected from air and light, refrigerate or freeze.

### **[ References ]**

[1] Li P, Matsunaga K, Yamamoto K, *et al. Neurosci. Lett.*, 1999, 273(1):53-6.

[2] Li Z H, Li W, Shi J L, *et al. Plos One*, 2014, 9(3):e91260.

[3] Du M , Huang K , Gao L , *et al. Journal of Huazhong University of Science and*

*Technology Medical sciences* , 2013, 33(6):822-6.

[4] Li Y M, Liu G L, Qiao J, *et al. Information on Traditional Chinese Medicine*, 2015, 32(6):27-30.

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